Element Code: ?

# Added to California Rare Plant Rank 1B.2 in the CNPS Inventory on December 10, 2013

Rare Plant Status Review: Frasera albomarginata var. induta Proposed Addition to California Rare Plant Rank 1B.2, G5T2 / S1 Aaron E. Sims (CNPS) and Roxanne Bittman (CNDDB) October 31, 2013

Changes made to the original document appear in blue text.

## **Background**

Frasera albomarginata var. induta is a perennial herb in the Gentianaceae that is known only from the Clark Mountains of California and greater Spring Mountains of Nevada. It was originally included in Swertia albomarginata, a California Rare Plant Rank (CRPR) 4.3 taxon that is concurrently being evaluated for a taxonomic name change to F. albomarginata var. albomarginata, and rank change to CRPR 2B.3. Frasera albomarginata var. induta is included in The Jepson Manual, Second Edition (Baldwin 2012; available online at: http://ucjeps.berkeley.edu/cgi-bin/get\_IJM.pl?tid=59221). It is distinguished from var. albomarginata in having puberulent (versus glabrous) inflorescence branches and calyx lobes, and a nectary pit that is more or less truncate or notched at the tip (versus two-lobed at the tip in var. albomarginata). It also differs in range; var. induta is restricted to the Clark Mountains of California and southern Nevada, whereas var. albomarginata is known from other desert mountain ranges, excluding the Clark Mountains. Frasera albomarginata var. induta is mostly known to flower in California from May to June, however, a single collection indicates a blooming time as late as September (Consortium of California Herbaria 2013).

Frasera albomarginata var. induta is known from dry, open pinyon and juniper woodland, and is usually on rocky or gravelly carbonate. It is known from an approximate elevation of 1,705 to 1,770 meters in California (Consortium of California Herbaria 2013).

Frasera albomarginata var. induta is currently only known from approximately two occurrences in California, both of which are in the Clark Mountains of San Bernardino County. Due to the vagueness of one of the occurrences, it is quite possible that the two occurrences are actually from the same general location, and field surveys are needed. Both of its occurrences are historical (occurrences not "seen" in the past twenty years are considered historical by the CNDDB), with one having not been redocumented in over fifty years. However, the historical status of its occurrences may not be significant; there has been little or no land use change in its area of occupancy, so the probability of the plants still being present is considered to be high. Both occurrences are known from the Mojave National Preserve. At the 2011 Nevada Rare Plant Workshop, F. albomarginata var. induta was reviewed and added to the Nevada Native Plant Society Watch List (J. Morefield pers. comm. 2013). It is also being tracked at the Nevada Natural Heritage Program (NNHP); however, the NNHP has not comprehensively mapped it yet, and it is currently known from at least nine historical sites in the Spring Mountains (J. Morefield pers. comm. 2013).

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Threats to *F. albomarginata* var. *induta* are unknown at this time. Given that all of its occurrences are in the Mojave National Preserve, threats are expected to be minimal. However, due to heavy grazing pressure in Mojave National Preserve (J. Andre pers. comm. 2013), and the lack of a grazing management plan there (T. Thomas pers. comm. 2013), *F. albomarginata* var. *induta* is possibly threatened by grazing. Furthermore, However, since it is only known from two occurrences, both of which are represented from historical herbarium collections, we tentatively propose a threat rank of .2 until more information becomes available.

Based on the available information, CNPS and CNDDB recommend adding *Frasera albomarginata* var. *induta* to CRPR 1B.2 in the CNPS Inventory. If additional information becomes available in the future which might constitute a change in the rarity status of *F. albomarginata* var. *induta* in California and/or Nevada, CNPS and CNDDB will re-evaluate its status at that time.

### **Recommended Actions**

CNPS: Add Frasera albomarginata var. induta to 1B.2

CNDDB: Add Frasera albomarginata var. induta to G5T2 / S1

## **Draft CNPS Inventory Record**

Swertia albomarginata S. Watson var. induta (Tidestr.) Card

Clark Mountain green-gentian

Gentianaceae

CRPR 1B.2

Nevada

San Bernardino

Clark Mtn. (249D) 3511555

Pinyon and juniper woodland / rocky or gravelly, usually carbonate; elevation 1705-1770 meters.

Perennial herb. Blooms May-June (September).

Known in CA only from the Clark Mtns. Needs field surveys. Possibly threatened by grazing. See *Annals of the Missouri Botanical Garden* 18(2):275 (1931) for original description.

#### **Literature Cited**

Baldwin, B.G. 2012. *Frasera*. Pp. 813-814 in Baldwin, B.G, D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.), The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley, Los Angeles, London.

Consortium of California Herbaria. 2013. Data provided by the participants of the Consortium of California Herbaria. Regents of the University of California, Berkeley. Accessed on 5 September 2013. Available online at: http://ucjeps.berkeley.edu/consortium/.